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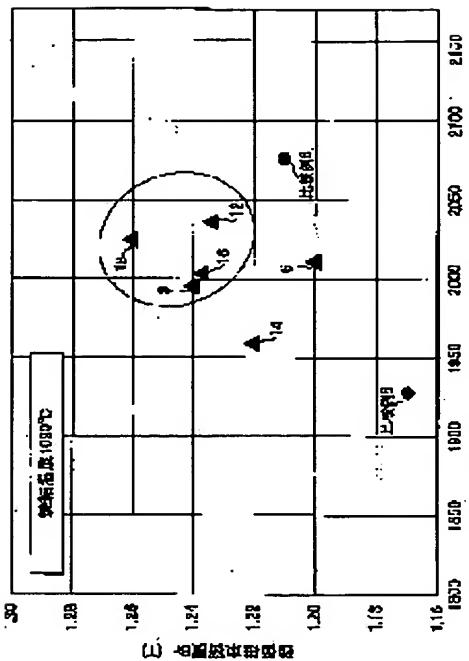
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(54) METHOD OF MANUFACTURING RARE-EARTH ELEMENT PERMANENT
MAGNET

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(57)Abstract:

PROBLEM TO BE SOLVED: To provide a method by which a rare-earth element permanent magnet, that is superior in both coercive force and residual magnetic flux density can be manufactured.

SOLUTION: After a mixture of alloy X powder, composed mainly of R₁₂T₁₄B (where R₁, T, and B respectively denote one or more kinds of rare earth elements including Y (Dy is indispensable), one or more kinds of transition metal elements, and boron) and alloy Y powder, composed mainly of R₂T (where R₂ and T respectively denote one or more kinds of heavy rare-earth elements and one or more kinds of transition metal elements) is obtained, the mixed powder is sintered. The magnetic characteristics of the rare-earth permanent magnet can be improved, by adjusting the Dy ratio which is the ratio of the content of the heavy rare-earth elements in the alloy X powder to that of the heavy rare-earth elements in the sintered magnet

composition to be 0.38–0.99 and R ratio, which is the ratio of the content of the rare-earth elements in the alloy X powder to that of the rare-earth elements, in the sintered magnet composition to be 0.94–1.03.

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